

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NO.	DRAWN BY	
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ABBREVIATIONS

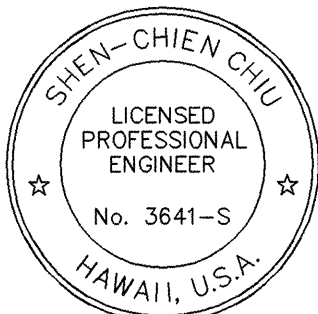
Abbr	Description
<u>A</u>	Abut
Abbr	Abbreviate, Abbreviation
Alt	Alternate
&	And
Approx	Approximate
AC	Asphalt Concrete
AZ	Azimuth
<u>B</u>	BK
Bal	Balance
B	Baseline
BM	Beam
Brg, Brgs	Bearing, Bearings
BVC	Beginning of Vertical Curve
Bet	Between
BF	Both Faces
BW	Bothways
B, Bott	Bottom
Br	Bridge
BW	Backwall
<u>C</u>	Cant
CIP	Cast in Place
CIP	Cast Iron Pipe
C	Centerline
CC	Center to Center
Cl, Clr	Class, Clearance
Col	Column
CC	Compound Curve
Conc	Concrete
Conn	Connection
Const	Construction
CJ	Construction Joint
Cont	Continuous
CF	Cubic Feet
CY	Cubic Yard
<u>D</u>	Det
Dia, Ø	Diameter
Dim	Dimension
Dist	Distance
Dwls	Dowels
DI	Drain Inlet
Dwg, Dwgs	Drawing, Drawings
<u>E</u>	Ea
EF	Each Face
EFH	Each Face Horizontal
EFV	Each Face Vertical
EW	Each Way
EP	Edge of Pavement
E	East
Elec	Electrical
El, Elev	Elevation
Emb	Embankment
EVC	End of Vertical Curve
Eq	Equal
Est	Estimated
Exc	Excavation
Excl	Excluding
Exist	Existing
Exp, E	Expansion
Ext	Exterior
ES	Each Side

<u>F</u>	FF
F'c	Specified Strength of Concrete
F'ci	Strength of Concrete at Time of Initial Prestress
Ft	Feet, Foot
Fig	Figure
Fin Gr	Finished Grade
F	Fixed
Ftg	Footing
FA	Force Account
FF	Front Face
<u>G</u>	GA
Galv	Galvanized
Gen	General
Gir	Girder
<u>H</u>	H, Ht
H	Hinge
Horiz	Horizontal
<u>I</u>	IB
In	Inch
ID	Inside Diameter
IF	Inside Face
Int	Interior
Inv	Invert
<u>J</u>	Jt
<u>K</u>	K
KFT	Kip Foot
KSI	Kips Per Square Inch
<u>L</u>	L
LB, LBS	Pound, Pounds
Ltg Std	Lighting Standard
LF	Linear Feet
Longit	Longitudinal
LS	Lump Sum
<u>M</u>	MH
Max	Maximum
Mech	Mechanical
Min	Minimum
Misc	Miscellaneous
MPH	Miles Per Hour
<u>N</u>	NF
N	North
NIC	Not in Contract
NTS	Not to Scale
No, Nos, #	Number, Numbers
<u>O</u>	O/S
OC	On Center
Opn'g	Opening
OB	Outbound
OD	Outside Diameter

<u>P</u>	Pav't
Perf	Perforated
PL	Plate
PCC	Point of Curvature
PCF	Pounds Per Cubic Foot
PSF	Pounds Per Square Foot
PSI	Pounds Per Square Inch
PLF	Pounds Per Linear Foot
PI	Point of Intersection of Tangents
PIVC	Point of Intersection of Vertical Curve
PT	Point of Tangency
PT, PTS	Point, Points
PRC	Point of Reverse Curvature
PVC	Polyvinyl Chloride
Prestr	Prestressed
P/S	Prestressed Strands
PB	Pull Box
<u>R</u>	R
RF	Rear Face
Ref	Reference
Reinf	Reinforcement
Req'd	Required
RWLOL	Retaining Wall Layout Line
<u>S</u>	Sect
Sht	Sheet
S	South
Spc, Sp	Spaces
Spec	Specification
SF	Square Feet
SY	Square Yard
SS	Stainless Steel
Std	Standard
Sta	Station
Stiff	Stiffener
Stirr	Stirrup
Str	Straight
Struct	Structural
SE	Superelevation
Symm	Symmetrical
<u>I</u>	TS
Tan	Tangent
Temp	Temporary
Thk	Thick
T	Top
T&B	Top and Bottom
TOD	Top of Deck
Tot	Total
Transv	Transverse
Typ	Typical
<u>V</u>	Var
Vert	Vertical
VC	Vertical Curve

<u>W</u>	WWF
WW	Wing Wall
WP	Work Point
<u>Y</u>	YR
YR	Year

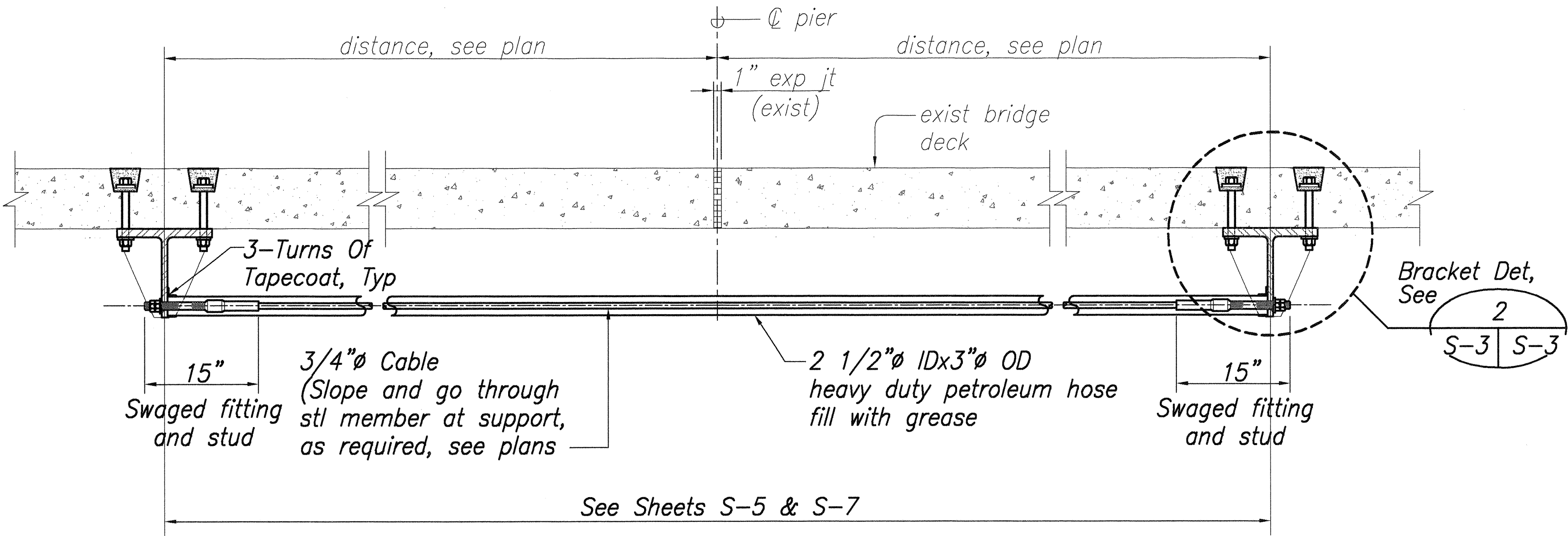
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(46)	2000	5	26



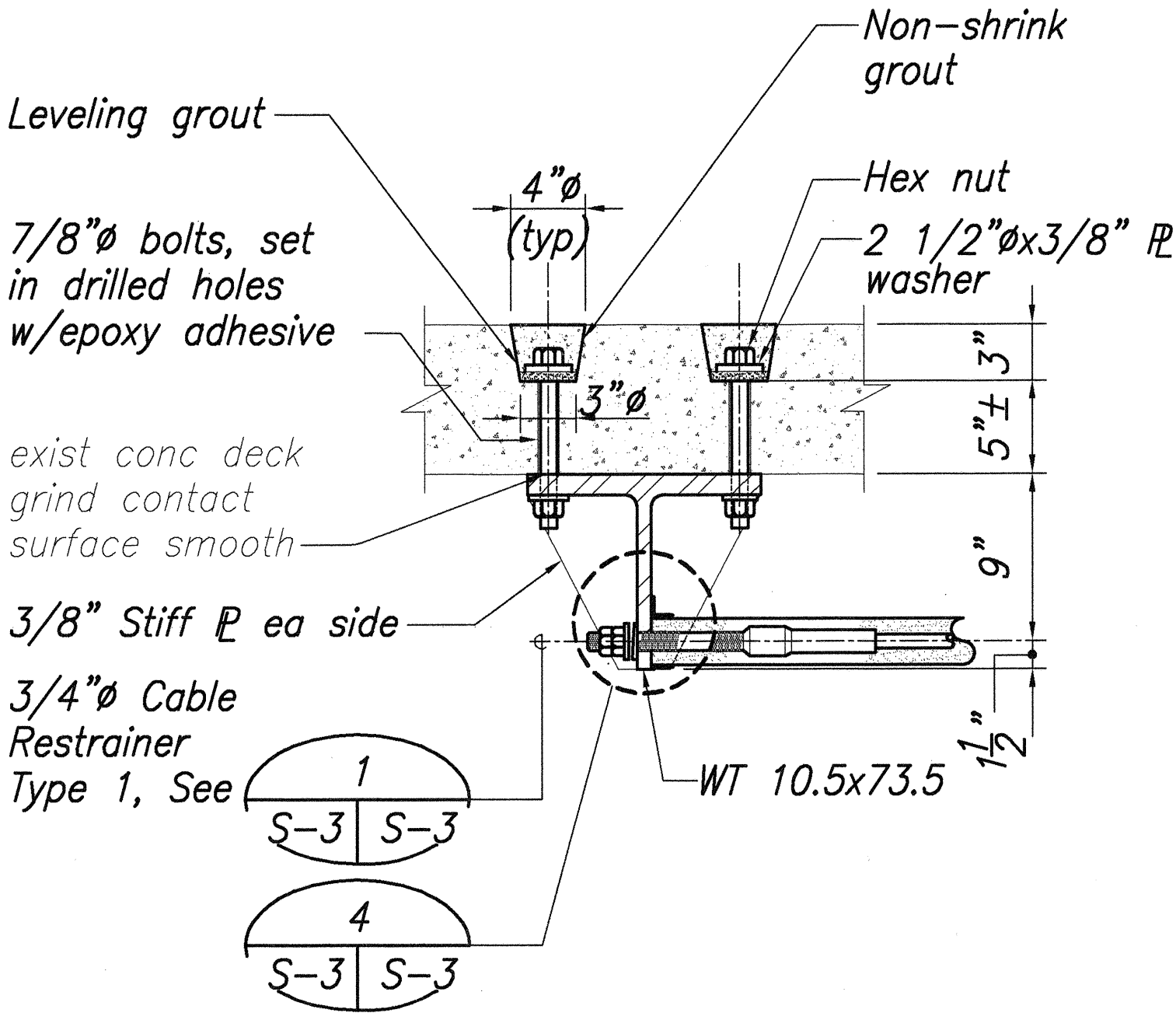
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION  
Shen-Chien Chiu

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
ABBREVIATIONS	
SEISMIC RETROFIT OF VARIOUS BRIDGES EAST OF NINOLE, HAWAII F.A. PROJECT NO. BR-019-2(46)	
Scale: As Noted	Date: AUG. 17, 1999
SHEET No. S-2 OF 23 SHEETS	

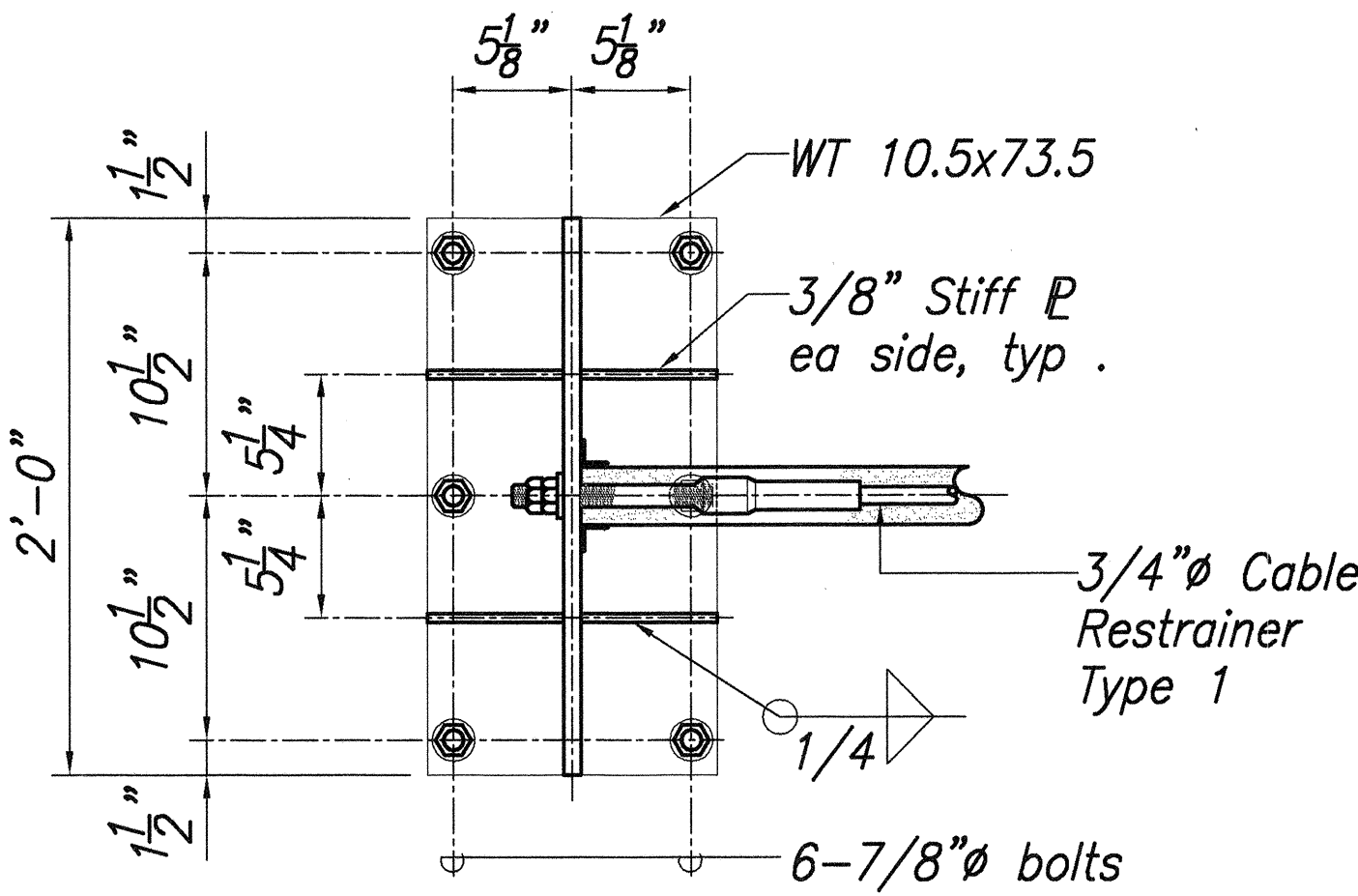
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(46)	2000	6	26



**TYPE I RESTRAINER** 1  
 Scale : 1"=1'-0" S-3 S-3



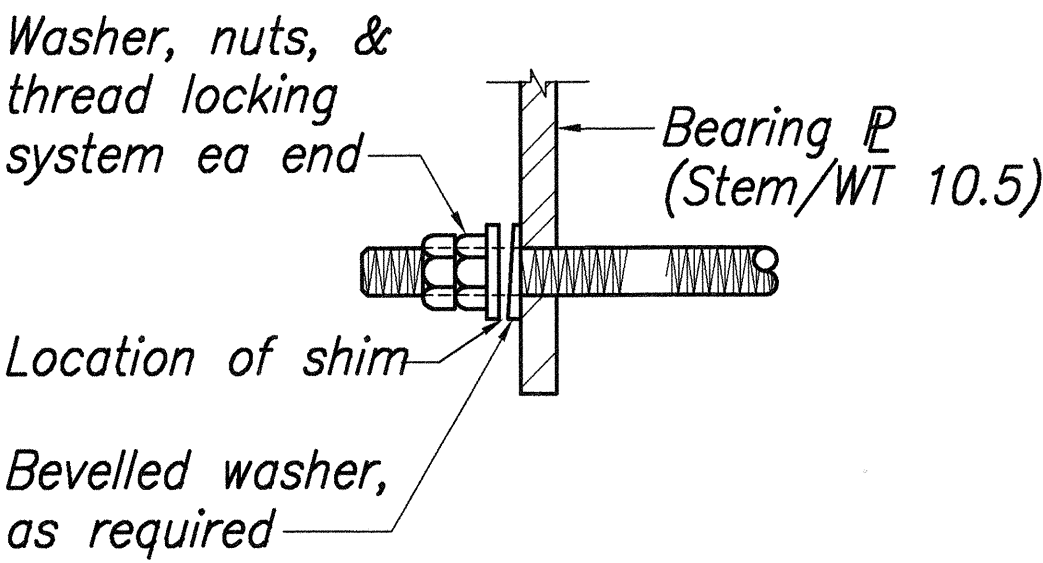
**CONNECTION DETAIL** 2  
 Scale: 1 1/2"=1'-0' S-3 S-3  
 S-5, S-7



**BOTTOM VIEW** 3  
 Scale: 1 1/2"=1'-0" S-3 S-3  
 S-5, S-7

**TABLE 1**

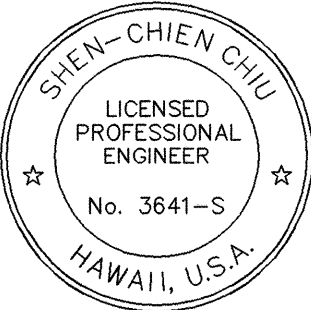
Ambient Temp (F°)	Shim Thickness (IN)
<40	1/2
40 TO 80	1 1/8
80>	1 3/4



**Notes**  
 Place shims between bearing plate and washer. Tighten nuts to remove slack from system. Remove shims. Shim thickness to be in accordance with Table 1. Both anchorage of a unit shall be adjusted simultaneously.

**CABLE END ANCHOR** 4  
 Scale: 3"=1'-0" S-3 S-3  
 S-19

Section (Alpha) "A" "B"  
 Detail (No.) "1", "2"  
 Sheet No. where section is cut or detail taken from S1 S1 Detail or section designation  
 Sheet No. where section or detail is drawn



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*Shen-Chien Chiu*

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>TYPICAL DETAILS</b>	
SEISMIC RETROFIT OF VARIOUS BRIDGES EAST OF NINOLE, HAWAII F.A. PROJECT NO. BR-019-2(46)	
Scale: As Noted	Date: AUG. 17, 1999
SHEET No. S-3 OF 23 SHEETS	

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ORIGINAL PLAN	
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